



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,385	03/05/2002	Jeffery J. Sheldon	IDEV:020US	8270

7590 08/03/2007  
FULBRIGHT & JAWORSKI L.L.P.  
A REGISTERED LIMITED LIABILITY PARTNERSHIP  
SUITE 2400  
600 CONGRESS AVENUE  
AUSTIN, TX 78701

EXAMINER
----------

EREZO, DARWIN P

ART UNIT	PAPER NUMBER
----------	--------------

3731

MAIL DATE	DELIVERY MODE
-----------	---------------

08/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/092,385

**Applicant(s)**

SHELDON, JEFFERY J.

**Examiner**

Darwin P. Erez

**Art Unit**

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,12,14,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,12,14,25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments regarding the lack of motivation for replacing Stinson's radio opaque material with a non-radio opaque material have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the combination of Goicoechea et al. and Stinson et al.

However, the hindsight argument is not persuasive. The use of non-radio opaque and radio opaque materials as reinforcement elements in stents are well known in the art. This is evidenced by the rejections provided below. It is noted that the Stinson reference is now being used as a teaching reference for providing a knot between crossing strands.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 3731

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1, 2, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,716,365 to Goicoechea et al. in view of US 6,340,367 to Stinson et al.

(claims 1 and 2) Goicoechea discloses a method of securing an intersection formed from two or more strands of a device suitable for implantation into a living tissue (a stent), the intersection defining at least two sections (seen in Fig. 4b), the method comprising passing a non-radio opaque material (polypropylene filaments formed as a suture; col. 9, lines 48-51) through at least two of the at least sections, wherein the passing includes bending the suture at a location to form a loop; and joining the suture together via a knot (tie) to secure the intersection.

Goicoechea discloses providing a securing element to strands having juxtaposed apices but is silent to a method of securing crossed strands. However, the securing elements are still used to secure the connection between adjacent strands to form a tubular stent, wherein the securing elements are tied onto the strands (col. 9, lines 48-50).

Stinson also discloses a method of securing an intersection between two or more strands, wherein the strands are crossing strands **16**, and wherein the securing elements **14** are also tied between the strands. Since the securing element is tied to the strands, it would be inherent that the securing element helps secure the intersection.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methodology of Goicoechea to include securing crossing strands instead of just strands having juxtaposed apices because tying a securing element between any strands will enhance the security of the tubular structure (stent).

(claims 25 and 26) The above combination of Goicoechea and Stinson discloses a device formed from the modified method above, wherein the device has a body having two crossed strands that are crossed to form an intersection, wherein the two strands have a free end; and a securing material securing the intersection by tying the radiopaque material around the intersection. See the rejection to claim 1.

7. Claim 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goicoechea et al. in view of Stinson et al, as applied to claim 1, and in further in view of The Ashley Book of Knots by Clifford W. Ashley (previously recited).

The above combination of Goicoechea and Stinson discloses the method of securing an intersection formed from two or more crossed strands having an intersection defining at least two sections, wherein securing the intersection comprises the step of tying a non-radio opaque material around the crossed strands at said intersection. Goicoechea is merely silent with regards to how the non-radio opaque material is tied, which is what is being recited in claim 12. However, Ashley discloses a variety of methods of forming knots. Specifically, Ashley teaches forming a "Lineman's Loop" on page 191 (included with in the Office Action dated 11/04/04). Such a knot is "strong, secure, and easily tied" (p. 191, line 8). Therefore, it would have been obvious to one having ordinary skill in the art of knots to secure the intersecting strands of Goicoechea's stent with a Lineman's Loop, as taught by Ashley, in order to quickly form strong knots.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darwin P. Erez who whose telephone number is (571) 272-4695. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571) 272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Darwin P. Erezon/  
Examiner  
Art Unit 3731

de